



## Bar Graphs of Favourite Music

### How to Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool [Random Sampler](#) to download a sample.X

**Reference year:** (select year)      **Sample size:** At least 50 students

**Select questions:** Favourite type of music

**Location:** Select location      **Year level:** (select a range of year levels)

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% entered.

### Task:

1. What's your favourite type of music?
2. Make a prediction of what you think will be the most popular favourite type of music in the random sample.
3. In your CensusAtSchool random sample, find the question about favourite type of music, and record first forty in the frequency table below.  
If there is a blank cell in your data sample, go to the next cell.

| Favourite type of Music | Frequency | Total | Percentage |
|-------------------------|-----------|-------|------------|
| Classical               |           |       |            |
| Country                 |           |       |            |
| Jazz                    |           |       |            |
| Metal (eg. Heavy metal) |           |       |            |
| Pop                     |           |       |            |
| Punk                    |           |       |            |
| Rap/Hip hop             |           |       |            |
| Reggae                  |           |       |            |
| Rhythm and Blues (R&B)  |           |       |            |
| Rock                    |           |       |            |
| Techno/Electronic       |           |       |            |
| Other                   |           |       |            |



|       |  |    |      |
|-------|--|----|------|
| None  |  |    |      |
| Total |  | 40 | 100% |

- 4.** Add the frequencies up to fill in the totals column. Calculate the percentages. Use the percentage to create a bar graph of favourite music.
- 5.** Refer back to your answer for question 1. Is your favourite type of music the most popular category in your graph? If not, what is?
- 6.** Refer back to your answer for question 2. Was your prediction of the favourite type of music in the random sample correct?
- 7.** Why do we use percentage for comparison instead of the total?
- 8.** Do you think the ages of the students from the random sample would affect the favourite type of music? Give reasons.

### **Extension:**

- 1.** Make a prediction of what you think will be the most popular favourite type of music in your class.
- 2.** Create a table like the one on the previous page.
- 3.** Conduct a survey with your class with the following CensusAtSchool question

What is your favourite type of music? Select one only.

- |                                                   |                                                 |                                            |
|---------------------------------------------------|-------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> Classical                | <input type="checkbox"/> Punk                   | <input type="checkbox"/> Rock              |
| <input type="checkbox"/> Country                  | <input type="checkbox"/> Rap/Hip Hop            | <input type="checkbox"/> Techno/Electronic |
| <input type="checkbox"/> Jazz                     | <input type="checkbox"/> Reggae                 | <input type="checkbox"/> Other             |
| <input type="checkbox"/> Metal (e.g. heavy metal) | <input type="checkbox"/> Rhythm and Blues (R&B) | <input type="checkbox"/> None              |
| <input type="checkbox"/> Pop                      |                                                 |                                            |

- 4.** Create a bar graph of percentages of favourite types of music for your class.
- 5.** Write a paragraph comparing the graphs between your class and the random sample. Some things to address in your paragraph would be:
  - a. Comparison of most popular and least popular types of music
  - b. Patterns in the data, such as similarities between the data sets
  - c. Is your prediction about your class's most popular favourite music correct?
  - d. Is your favourite type of music the most popular?



e. Why might the random sample and your class differ?

**6.** How would the results be different if we used totals instead of percentage? Would we be able to make a fair comparison between data sets if we did not use percentage?

**7.** Do you think the age of your class affects the favourite type of music? Give reasons.